DOCUMENTS EXPEDITING PROJECT

[No. 1]

LETTER FROM THE SECRETARY OF THE INTERIOR TRANSMITTING A REPORT BY THE DIRECTOR OF THE FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE INTERIOR, ON FINDINGS AND RECOMMENDATIONS RELATIVE TO LOCALITIES WHICH WOULD BE MOST SUITABLE FOR THE ESTABLISHMENT OF ADDITIONAL FISH HATCHERIES AND REARING PONDS IN THE GREAT LAKES AREA, PURSUANT TO PUBLIC LAW 249, EIGHTY-FIRST CONGRESS

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE SECRETARY,
Washington 25, D. C., January 16, 1951.

Hon. SAM RAYBURN,
Speaker of the House of Representatives,
Washington 25, D. C.

MY DEAR MR. SPEAKER: Public Law 249, Eighty-first Congress, approved August 18, 1949, authorized and directed the Director of the Fish and Wildlife Service of this Department to survey the Great Lakes area to determine what localities would be most suitable for the establishment of additional fish hatcheries and rearing ponds should it become desirable for the Federal Government to operate such additional fish hatcheries and rearing ponds in the Great Lakes area, and to report to the Congress not later than December 31, 1950, the results of such survey.

Accordingly, a report of such findings, together with recommendations, is submitted herewith. Should other potential sites be brought to the attention of the Fish and Wildlife Service, further investigations will be made as time and funds permit.

Sincerely yours,

OSCAR L. CHAPMAN,
Secretary of the Interior.

[PUBLIC LAW 249—81ST CONGRESS]

[CHAPTER 478—1ST SESSION]

[H. R. 2740]

AN ACT To authorize the establishment of fish hatcheries in the States of Georgia and Michigan; to authorize the rehabilitation and expansion of rearing ponds and fish cultural facilities in the States of New York and Colorado; to authorize the Secretary of the Interior to undertake a continuing study of shad of the Atlantic coast; and to amend the Act of August 8, 1946, relating to investigation and eradication of predatory sea lampreys of the Great Lakes, and for other purposes

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Interior is hereby authorized to establish and construct rearing ponds and a fish hatchery at suitable locations at or near Millen, Georgia, and in the upper peninsula of Michigan, at a cost of not to exceed $250,000 and $325,000, respectively; to rehabilitate and expand at a cost of not to exceed $70,000 the rearing ponds and facilities at the Cape Vincent, New York, fish cultural station, and to purchase lands adjoining such station in connection with the rehabilitation and expansion of such facilities; and

to rehabilitate, repair, and place in efficient operating condition the rearing ponds and fish cultural facilities at Leadville, Colorado, at a cost of not to exceed $90,000.

SEC. 2. The Secretary of the Interior is hereby authorized to undertake, through the Fish and Wildlife Service, a comprehensive and continuing study of the shad of the Atlantic Coast for the purpose of recommending to the Atlantic Coast States, through the Atlantic States Marine Fisheries Commission, measures to be taken to arrest decline, increase the abundance, and promote the wisest utilization of such shad resources at a cost of not to exceed $75,000 per annum for a six-year period. For the purposes of this section, any agency of the United States, or any corporation wholly owned by the United States, is authorized to transfer, without exchange of funds, any boats or equipment excess to its needs required by the Fish and Wildlife Service for the studies authorized herein.

SEC. 3. That the joint resolution of August 8, 1946 (60 Stat. 930), be amended to read as follows:

"That the Director of the Fish and Wildlife Service of the Department of the Interior is hereby authorized and directed to prosecute investigations of the abundance and distribution of sea lampreys and their effects on fishes, experiments to develop control measures, and a vigorous program for the elimination and eradication of sea lamprey populations of the Great Lakes; to survey the Great Lakes area to determine what localities would be most suitable for the establishment of additional fish hatcheries and rearing ponds if, and when, it becomes desirable for the Federal Government to operate such additional fish hatcheries and rearing ponds in the Great Lakes area; and is authorized and directed to report to the Congress not later than December 31, 1950, the results of such survey and to make recommendations with respect thereto. The cost of the investigations and studies authorized in this section shall not exceed $359,000 for the first year and the sum of $216,000 per annum thereafter.

"In carrying out the foregoing purposes and objectives the Director of the Fish and Wildlife Service is authorized to cooperate with the official conservation agencies of the States bordering on the Great Lakes, with the commercial fishing industry, and with other governmental or private agencies, organizations, or individuals having jurisdiction over or an interest in the fisheries of the Great Lakes."

SEC. 4. There is authorized to be appropriated from time to time, out of any moneys in the Treasury not otherwise appropriated, such sums as may be necessary to carry out the purposes and objectives of this Act.

Approved August 18, 1949.

INVESTIGATION OF LAKE TROUT HATCHERY SITES IN THE GREAT LAKES AREA

Albert M. Day, Director, Fish and Wildlife Service, United States Department of the Interior

(As required by Public Law 249, 81st Cong., approved August 18, 1949)

In connection with the rehabilitation of the Great Lakes fisheries, considerable emphasis is being placed on the production and distribution of fingerling lake trout as an effective measure in reestablishing populations of this important food and sport fish.

Facilities for the production of lake trout fingerlings are limited in the Great Lakes area. The chief Federal production center is at the United States fish-cultural station at Charlevoix, Mich. In addition, the States of Minnesota, Wisconsin, and Michigan have limited facilities for the production of lake trout.

The requirements for a large lake trout hatching and rearing unit are rather exacting: A constant flow of 2,000 to 2,500 gallons of spring or well water per minute, at a mean annual temperature of 45° to 55°; a supplementary supply of surface water for seasonal tempering and rearing; several acres of moderately level terrain suitable to construction of buildings, ponds, and raceways; reasonable accessibility to main roads, shopping centers, power and telephone facilities. Sites having all these qualifications are extremely rare; most of these sites have already been taken over by State or private interests for fish-cultural purposes.

In the course of the search for hatchery sites, the so-called Great Lakes slope area was most intensively searched. This area includes the north shore of Lake Superior in Minnesota, the south shore of Lake Superior in Wisconsin and Michigan, the west shore of Lake Michigan in Wisconsin and Michigan, the east shore of Lake Michigan in Michigan, and the west shore of Lake Huron in Michigan.

Inland areas offering any promise were also covered, although sites within reasonable distance of the Great Lakes are most desirable.

The aid of fishery personnel of the Conservation Departments of Minnesota, Wisconsin, and Michigan was enlisted in the search. These people have been most cooperative and their detailed knowledge of the respective States was extremely helpful. Commercial fishermen, commercial fishing organs, manufacturers of commercial fishing gear, sportsmen, and various chambers of commerce have contributed much time and effort in this project.

All sites offered as being at all suitable have been examined. Hatchery-site evaluation sheets for nine of these areas are attached (appendix A–I). Other recommended locations, many of which are general areas rather than specific sites, are described in the following paragraphs:

Sturgeon Bay area, Door County, Wis.—Several small artesian and pumped wells in this vicinity indicated a possibility that further water supply could be developed in this area, or that the existing supply could be supplemented from Lake Michigan. The several wells examined were all too low in volume and were being used for other purposes. The waters of Lake Michigan are too variable in temperature to provide a reliable supplementary supply.

Artesian Basin, north shore of Lake Michigan—Manistique-Naubinway area, Schoolcraft and Mackinac Counties, Mich.—This extensive area, bordering Lake Michigan, appears to offer some possibility of a water supply from artesian or pumped wells. Supplementary water supply is available from several surface streams, although because of wide seasonal variation in temperature these streams are not in themselves suitable to trout culture. This area will be investigated further as the program develops.

Charlevoix area, Charlevoix County, Mich.—Surface streams in this area, particularly the Jordan River, its tributaries, and other small streams in this region, may offer a satisfactory water supply. Temperature surveys are being conducted by Service personnel this winter.

West Branch area, Ogemaw County, Mich.—The Rifle River and some of its tributaries offer possibilities for hatchery sites. Winter temperature studies are now being carried on with the cooperation of the Michigan Conservation Department.

Black River area, Alcona County, Mich.—Several small artesian wells in this vicinity were examined. In all cases, the volume of water was insufficient for the planned operations.

Deer Brook area, Langlade County, Wis.—An investigation of several small streams in this area indicated no suitable sites, principally because of a lack of water.

Former service rearing ponds, Sullivan Creek, Chippewa County, Mich.—These rearing facilities consist of four gravel-bottom raceways, each approximately 15 by 180 feet. Each raceway is divided into two sections 90 feet in length. Water is supplied from Sullivan's Creek, approximately 2,000 gallons per minute being available, with possibilities of increasing this volume. Summer water temperatures range from 50° to 52°. Winter temperatures taken during December 1948 and January, February, and March, 1949, indicate an average winter temperature of 40°. This figure is lower than is desirable, but it is extremely difficult to find surface or ground water much warmer during the winter months in the upper Great Lakes area.

A well-constructed log residence is available but would require winterizing for year-round occupancy. Other buildings include a small ice house, a meat room, and a garage for the residence. The terrain is level, well-drained and suited to the construction of buildings required to expand existing facilities. The existing raceways are constructed along a level bench flanking the east side of Sullivan Creek; sufficient space is available to allow for a considerable expansion of raceway facilities. It is believed that after rehabilitation, the existing facilities could carry 100,000 to 125,000 yearling fish on April 1, or a weight of approximately 18,000 pounds. The existing bulkheads are constructed of wood and have deteriorated considerably. They should be replaced with concrete structures having the necessary provisions for screens and dam boards.

The Sullivan Creek facilities are about 30 miles from Sault Ste. Marie, over generally good roads. Raco, the post office, with a small settlement, is 7 miles away. Electric power and telephone lines would have to be extended for approximately 4 miles to reach the site. The extension would be over level, sandy terrain where the costs should be moderate.

The watershed of Sullivan Creek lies entirely in State and Federal ownership, which assures protection of the water supply and ease of acquisition of the necessary land.

The many sites recommended by interested groups and individuals were rejected for a number of reasons, the most common of which were an inadequate water supply, or water of unsuitable temperature, usually too warm in summer and much too cold in winter. This situation is common to surface waters in the northern Lake States, where trout streams often freeze solid for long periods in the winter. The many springs and artesian wells examined were, as a rule, completely inadequate in volume of flow. Another common cause for the rejection of proposed sites was a terrain unsuited to hatchery construction—swampy, hilly, or so situated in relation to the water supply that gravity flow could not be utilized. A few sites were considered unsuitable because of extreme inaccessibility to roads, utilities, and shopping centers; however, in most of these cases, the water supply was not ideal as to volume and temperature.

Pendills Creek site, Chippewa County, Mich.—The search for and the investigation of hatchery sites in the Great Lakes area is continuing. In the intensive search carried on so far, no ideal site has been discovered. The Pendills Creek location, 30 miles west of Sault Ste. Marie in Chippewa County, Mich., offered the best available facilities for a large lake trout hatching-and-rearing station. Spring water is available from Vidian Creek in quantity at an acceptable, but not ideal, temperature. Supplementary water is available from Pendills Creek in unlimited quantity. The terrain is well-suited to hatchery construction, and the site is served by a good gravel road. In view of these considerations, this site was selected for development in April 1950. Eighty acres of land have been acquired, and development work is progressing as rapidly as weather conditions and funds will permit.

As a result of this investigation of lake trout hatchery sites in the Great Lakes area, the Fish and Wildlife Service offers the following recommendations:

1. That the Pendills Creek site be developed into a lake trout hatching-and-rearing station as rapidly as funds and weather conditions will permit. It should be borne in mind that construction work is hampered by extreme low temperatures and snow in this area during December, January, February, and March.
2. That the Sullivan Creek site be rehabilitated, expanded, and operated as a substation of the Pendills Creek unit, to provide additional space for rearing lake trout to fingerling size.
3. That the existing facilities at the United States fish-cultural station, Charlevoix, Mich., be expanded to furnish additional space for rearing lake trout to fingerling size.

DECEMBER 28, 1950.

APPENDIX A

HATCHERY SITE EVALUATION SHEET

State: Michigan. County: Schoolcraft.
Nearest town: Manistique. Size: Approximately 7,000.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): Accessibility is 15 miles to Manistique over surfaced and gravel roads.
Source of water: Big spring.
Average temperature: Summer, not known; winter, 44° F.
Rate of flow (cubic feet per second, or gallons per minute): Estimated 25 cubic feet per second.
Terrain (flat, sloping, steep, etc.): Terrain is flat at spring. Land rises gradually to the west.
Evidence of floods: None.
Vegetative cover: Hardwood and coniferous forest.
Soil type: Surface, clay loam; subsoil, not known.
Status of ownership (Federal, State, private): Site is in State ownership, as a State park.
Supplementary water supply, as nearby lakes or streams: None.
Availability of electric power and telephone: Both electric power and telephone service are available at the site.
Remarks: From the standpoint of water supply alone, this site is one of the best in Michigan, offering a large volume of water at a good temperature. However, the outlet stream flows for a distance of one-third mile through a dense cedar swamp to join Indian Lake. Fall over this distance is negligible, and there is no chance of obtaining gravity flow. In addition, the swampy terrain is unsuited to construction. A construction site would be available on the higher ground to the west, but a location here would require pumping operations. This site suggested by citizens of Manistique.

Appendix B

Hatchery Site Evaluation Sheet

State: Michigan. County: Schoolcraft.
Nearest town: Manistique. Size: 7,000.
Accessibility (type of road, highway designation, mileage to shopping center, etc.)
Source of water: Two lakes on property of H. K. Peterson, Manistique, Mich.
Average temperature: Summer, 60° to 70°; winter, 32° to 33°.
Rate of flow (cubic feet per second, or gallons per minute): No flows—lakes.
Terrain (flat, sloping, steep, etc.): Generally level.
Evidence of floods: None.
Vegetative cover: Hardwood forest.
Soil type: Surface, clay loam; subsoil, not known.
Status of ownership (Federal, State, private): Private.
Supplementary water supply as nearby lakes or streams: None.
Availability of electric power and telephone: Electric power and telephone service available at site (farm home).
Remarks: This site is unsuitable, having no flowing water of any type. The area was suggested by Mr. H. K. Peterson of Manistique, Mich.

Appendix C

Hatchery Site Evaluation Sheet

State: Michigan. County: Schoolcraft.
Nearest town: Thompson. Size: 200.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): Accessibility is good. The site is adjacent to a gravel county road.
Source of water: Pete Johnson Creek.
Average temperature: Summer, not known; winter, 45° to 48°.
Rate of flow (cubic feet per second, or gallons per minute): 200 gallons per minute.
Terrain (flat, sloping, steep, etc.): Sloping, Lake Michigan shore.
Evidence of floods: None.
Vegetative cover: Cropland, pasture land.
Soil type: Surface, clay loam; subsoil, not known.
Status of ownership (Federal, State, private): Private ownership, farm.
Supplementary water supply as nearby lakes or streams: None except by pumping back from Lake Michigan.
Availability of electric power and telephone: Both electric and telephone lines are within 1 mile of the site.
Remarks: Though this stream furnishes a water supply of suitable temperature, the volume is completely inadequate for trout-hatchery operations on a sizable scale. This site was suggested by Mr. Pete Johnson, of Thompson, Mich.

Appendix D

Hatchery Site Evaluation Sheet

State: Michigan. County: Ontonagon. T. 51 N., R. 42 W., sec. 31.
Nearest town: Ontonagon. Size: 2,500.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): Accessibility is extremely poor; 5 miles by foot trail from nearest road; 15 miles on Michigan Highway 64 to Ontonagon.
Source of water: Union Spring.
Average temperature: Summer, 45°; winter, unknown.
Rate of flow (cubic feet per second, or gallons per minute): 400 gallons per minute.
Terrain (flat, sloping, steep, etc.): Sloping.
Evidence of floods: None.
Vegetative cover: Hardwood forest.
Soil type: Surface, gravel and rock; subsoil, gravel and rock.
Status of ownership (Federal, State, private): State Park area.
Supplementary water supply as nearby lakes or streams: None.
Availability of electric power and telephone: 5 miles to electric power and telephone lines.
Remarks: The flow of this spring is inadequate for a large trout hatchery, and the inaccessibility of the site renders it impractical. This site was suggested by Ontonagon Chamber of Commerce.

Appendix E

Hatchery Site Evaluation Sheet

State: Michigan. County: Alger.
Nearest town: Grand Marais. Size: 600.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): Accessibility is 3 miles east of Grand Marais on gravel county road.
Source of water: Grand Marais Creek.
Average temperature: Summer, 55°; winter, 33° to 34°.
Rate of flow (cubic feet per second, or gallons per minute): 10 to 15 cubic feet per second.
Terrain (flat, sloping, steep, etc.): Lake Superior slope, stream flows through a deep, narrow valley.
Evidence of floods: None.
Vegetative cover: Coniferous and hardwood forest.
Soil type: Surface, sandy loam; Subsoil, not known.
Status of ownership (Federal, State, private): Private and State ownership.
Supplementary water supply as nearby lakes or streams: None available.
Availability of electric power and telephone: Electric power and telephone lines would have to be extended approximately 2 miles from Grand Marais village.
Remarks: This site offers a large volume of water having a suitable summer temperature of 52° to 55°. Winter temperatures are extremely low, 33° to 34°. Owing to the deep-cut valley through which this stream flows, it does not appear possible to utilize a gravity flow. The only suitable construction site is on the level ground near the bridge. This site was suggested by Louis Dowell and Grand Marais Chamber of Commerce.

Appendix F

Hatchery Site Evaluation Sheet

State: Michigan. County: Delta.
Nearest town: Rapid River. Size: 700.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): Accessibility to graveled county roads and unsurfaced private roads. Eight miles northwest of Rapid River.
Source of water: Berg Farm Spring.
Average temperature: Summer, not known; winter, 41°.
Rate of flow (cubic feet per second, or gallons per minute): Estimated 1,500 gallons per minute.
Terrain (flat, sloping, steep, etc.): Flat, swampy.
Evidence of floods: None.
Vegetative cover: Coniferous swamp; hardwoods on bordering uplands.
Soil type: Surface, peat soil adjacent to spring; Subsoil, clay loam on uplands.
Status of ownership (Federal, State, private): Private.
Supplementary water supply as nearby lakes or streams: None.
Availability of electric power and telephone: 4 miles to electric power and telephone lines.
Remarks: This site has a moderate supply of water at a fair temperature. There is no supplementary water supply. Nature of the terrain is such that there would be no opportunity for gravity flow. The ground adjacent to and below the spring is swampy and unsuited to construction. This was suggested by a group from Rapid River.

Appendix G

Hatchery Site Evaluation Sheet

State: Michigan. County: Delta.
Nearest town: Gladstone. Size: 5,000.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): This is a general area, rather than a specific site; the area is well served by surfaced and gravel roads and is convenient to shopping centers.
Source of water: Days River, Rapid River, and tributaries.
Average temperature: Summer, not known; winter, 33–34°
Rate of flow (cubic feet per second, or gallons per minute): Abundant surface water available.

Terrain (flat, sloping, steep, etc.): Flat to gently rolling.
Evidence of floods: None of any importance
Vegetative cover: The watershed is generally covered by hardwood forest.
Soil type: Surface, clay loam; subsoil, not known.
Status of ownership (Federal, State, private): Largely private ownership, some State land.
Supplementary water supply: Nearby lakes or streams, surface water supply only.
Availability of electric power and telephone: Both electric power and telephone service generally accessible to most sites in this area.
Remarks: This area can supply an almost unlimited amount of surface water, but winter temperatures are much too low for hatchery operations. With the exception of the Berg Farm Spring, which is handled in another report, there does not appear to be a ready source of ground water in this area. This area was suggested by the Escanaba and Gladstone Chamber of Commerce.

Appendix H

Hatchery Site Evaluation Sheet

State: Wisconsin. County: Taylor T. 33 N., R. 1 E., sec. 12.
Nearest town: Westboro. Size: Not incorporated, population 400.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): Accessibility to black top County Highway D runs east and west through potential site and intersects one-quarter mile with State Highway 13 running north and south at Westboro. Property inspected is located in village city limits or approximately one-quarter mile to shopping center, etc.
Source of water: Silver Creek, spring and lake fed.
Average temperature: Summer, 62°; winter, 35°.
Rate of flow (cubic feet per second, or gallons per minute): Irregular.
Terrain (flat, sloping, steep, etc.): Sloping.
Evidence of floods: Floods and water uncontrollable.
Vegetative cover: Abundance of water or creek vegetation.
Soil type: Surface, sand and gravel.
Status of ownership (Federal, State, private): Privately owned by three parties who, it is understood, will sell but will not donate even though local sponsors have applied pressure.
Supplementary water supply: nearby lakes or streams, none.
Availability of electric power and telephone: Present.
Remarks: Owing to fluctuating temperatures of the water supply (Silver Creek) and flooding conditions at this site, it is not recommended as a site for a fish hatchery.

Appendix I

Hatchery Site Evaluation Sheet

State: Wisconsin. County: Kewaunee.
Nearest town: Algoma. Size: 3,000.
Accessibility (type of road, highway designation, mileage to shopping center, etc.): Approximately is 6 miles north of Algoma on gravel county road.
Source of water: Lake Michigan, pumping, 30-acre site; property of Norman Shaw, Algoma, Wis.
Average temperature: Summer, 60°; winter, 32° to 34°.
Rate of flow (cubic feet per second, or gallons per minute): No flow.
Terrain (flat, sloping, steep, etc.): Sloping to Lake Michigan shore.
Evidence of floods: None.
Vegetative cover: Hardwood forest.
Soil type: Surface, clay loam; subsoil, not known.
Status of ownership (Federal, State, private): Private.
Supplementary water supply as nearby lakes or streams: None.
Availability of electric power and telephone: Electric power and telephone lines along county road through the property.
Remarks: This is an upland site bordering Lake Michigan approximately 6 miles north of Algoma. There is no water supply available except by pumping from Lake Michigan, in which the temperatures are not suitable for year-round operations. This site was suggested by Mr. Norman Shaw of Algoma, Wis.

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